



Everglades National Park Exotic Vegetation Management

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History/Background

- Over 1,000 plants reported within ENP, approximately 220 are non-native.

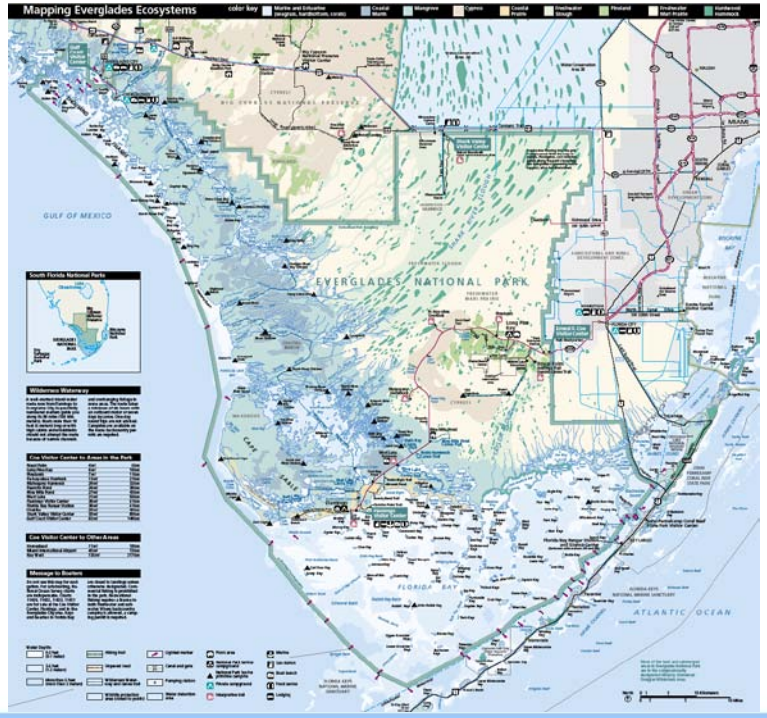
-Park established 1947

-Melaleuca- 1st reported 1967 (eastern boundary)

-East Everglades Expansion Area added in 1989

-Lygodium- 1st reported 1999

Work in progress







Priority Plant Species

- **Priority Plants**
  - All FLEPPC 2007 category I and II
    (Top *Melaleuca quinquenervia, Casuarina equisetifolis, Lygodium microphyllum, Schinus terebinthifolius, Thespesia populnea, Colubrina asiatica, Syngonium podophyllum, Epipremnum pinnatum*)
- **Newly Detected Plant Species**
  - 2008-*Phymatosorus scolopendria* (serpent fern)
    Cyrtopodium polyphyllum
  - 2009- *Senna pendula*- new populations
    On Hole In the Donut mounds-disturbed area
    Melochia nodiflora (Bretonica prieta)
    Desmanthus leptophllus (slenderleaf bundleflower)
    Corchorus aestuans (jute)
    Acalypha alopecuroides (foxtail copperleaf)

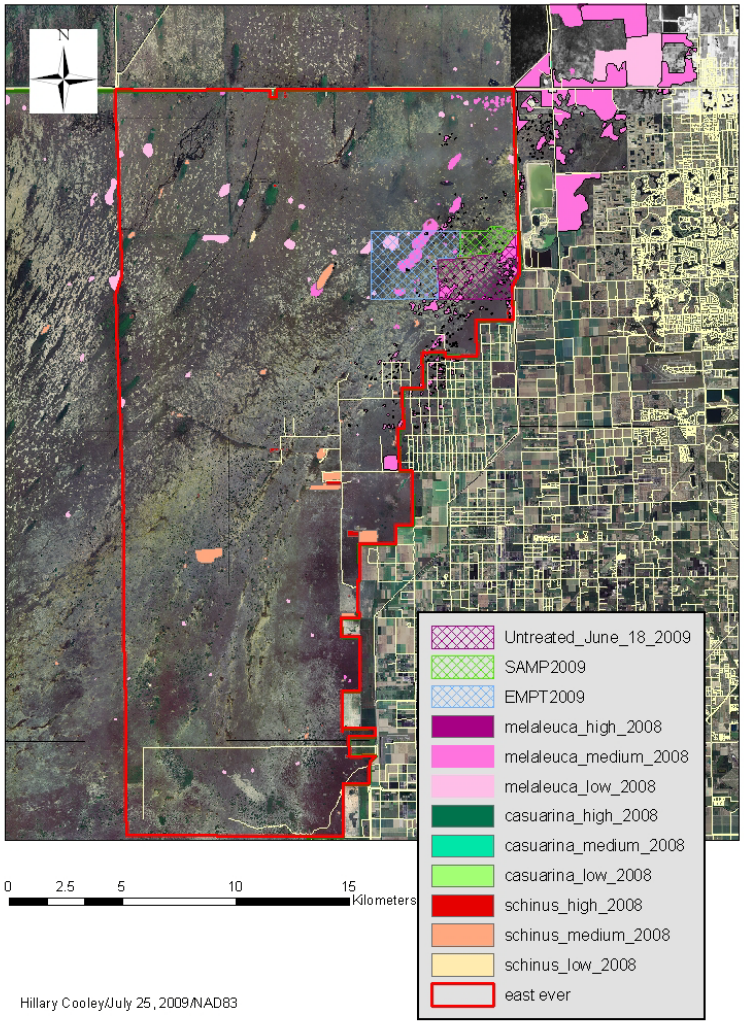
Invasive Species Programs

exotic vegetation management program

- Description
  - Manage and control invasive exotic plants within Everglades N.P.
- Objective
  - Reduce the presence and spread of exotic vegetation and preserve and protect park resources.
- Partners
  - FLDEP, SFWMD, ACOE, SAMP/DERM, NPSEPMT, NPSSFNRC, ECISMA/BASF and others
- Start/End Dates
  - Established 1949/on-going
- Status
  - On-going
- Funding (2009FY): SAMP=$54,750 EPMT=$100,000
- Annual Summary for 2009
  - SAMP=590 gross acres EMPT=2,508 gross acres

  Total=3,098 gross acres

Fiscal Year Treatments: 2009



Everglades National Park

Completed

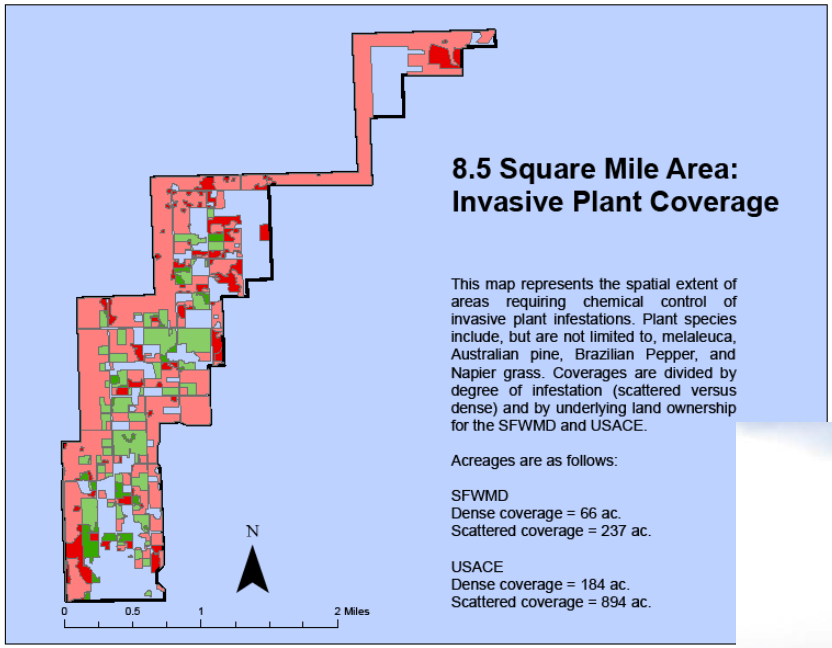
1. SAMP (590 acres)
2. EMPT (2,508 acres)
3. In house work (in progress)

Planned

4. NPSEVER- Re-treatment of melaleuca in North-east corner of EEEA (~1,000 acres)
5. ACOE/NPSEVER/DOT

   Exotic vegetation treatment of culverts along Tamiami Trail (~150 acres)

Fiscal Year Treatments: 2009

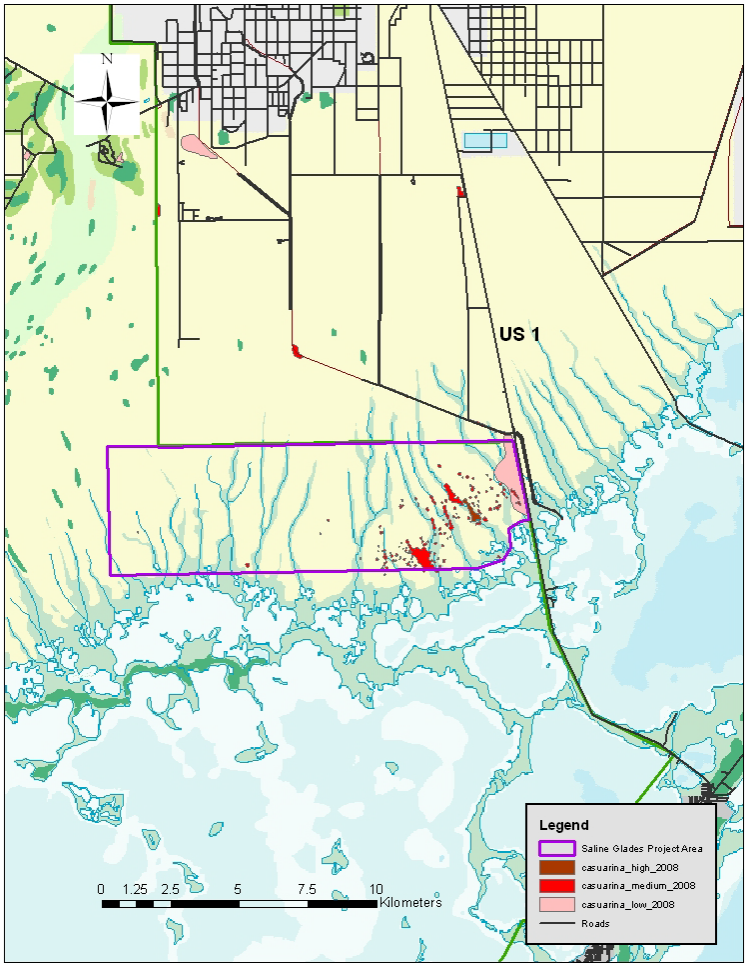


8.5 Square Mile Area

In progress

On our eastern boundary-
ACOE treatment of exotics

Fiscal Year Treatments: 2010

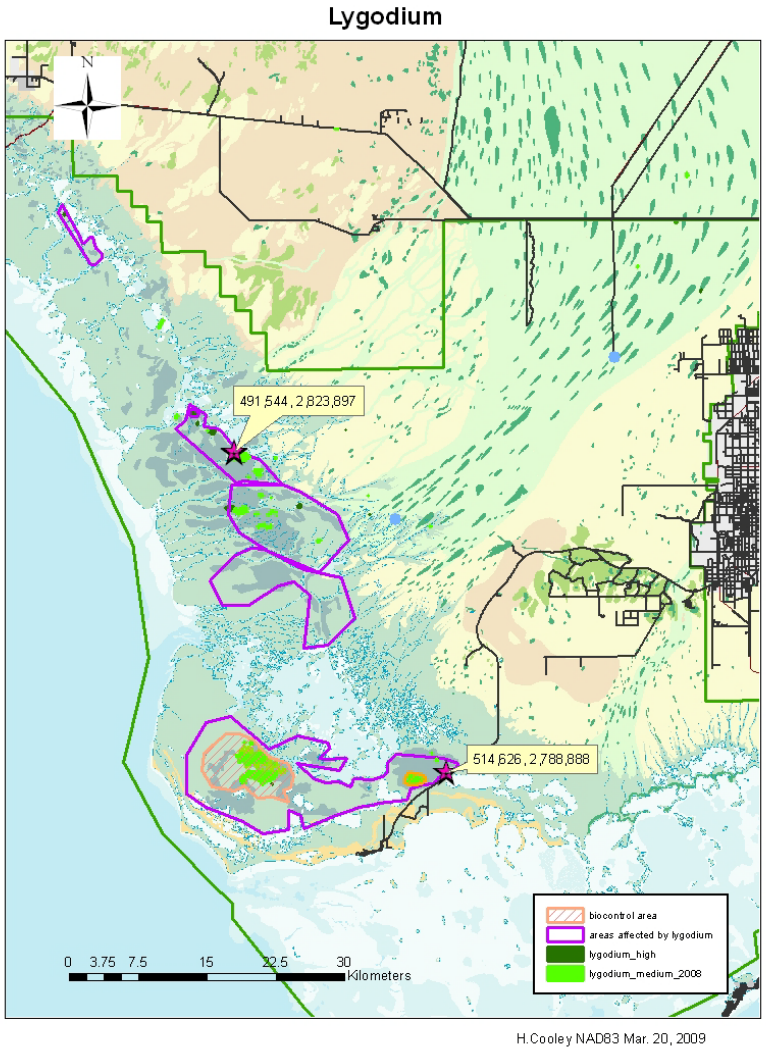


Planned

1. NPSEPMT-Treatment of melaleuca in EEEA (~3,000 acres)
2. NPSEPMT-Treatment (spot spray) of Australian pine in saline glades area (~700 acres)
3. MOA with Miami-Dade County-Treatment /Re-treatment of melaleuca and treatment of other Category I and II in EEEA
4. ACOE/NPSEVER/DOT

Exotic treatment of culverts along Tamiami Trail (~150 acres) if not in FY2009

Biological Control Needs



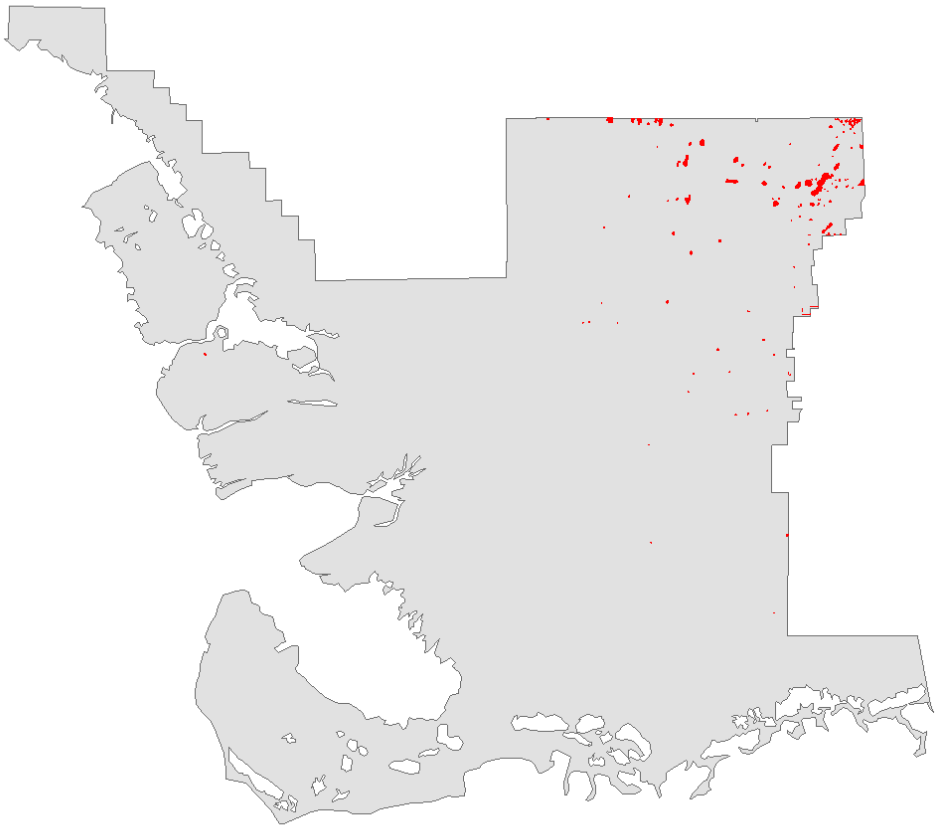
Monitoring of the brown Lygodium moth (*Neomusotima conspurcatalis*) in the coastal marsh area of Everglades National Park

Monitoring

- FLCEPMT plots and Fire Effects plots
- ECISMA-wide Digital Aerial Sketch-mapping (DASM)

-Hope to improve Lygodium/Fire monitoring

Digital Aerial Sketch Mapping



Everglades National Park

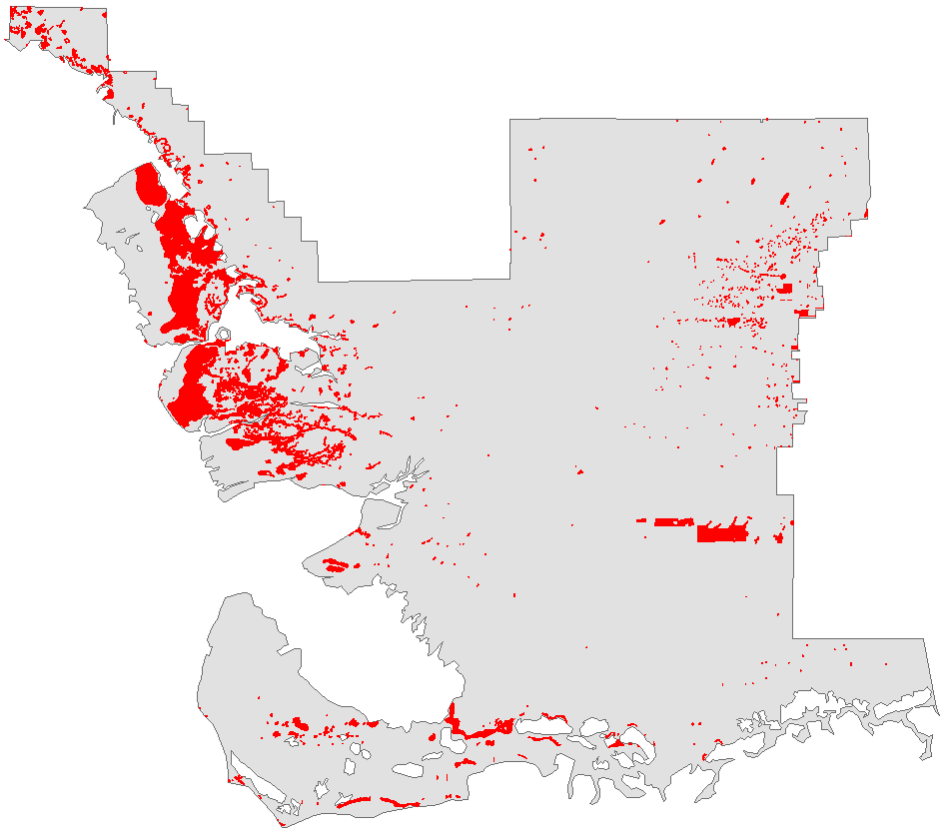
Melaleuca

Coverage Class		Acres
High		14
Medium		1395
Low	885	
	Total	2294





Digital Aerial Sketch Mapping



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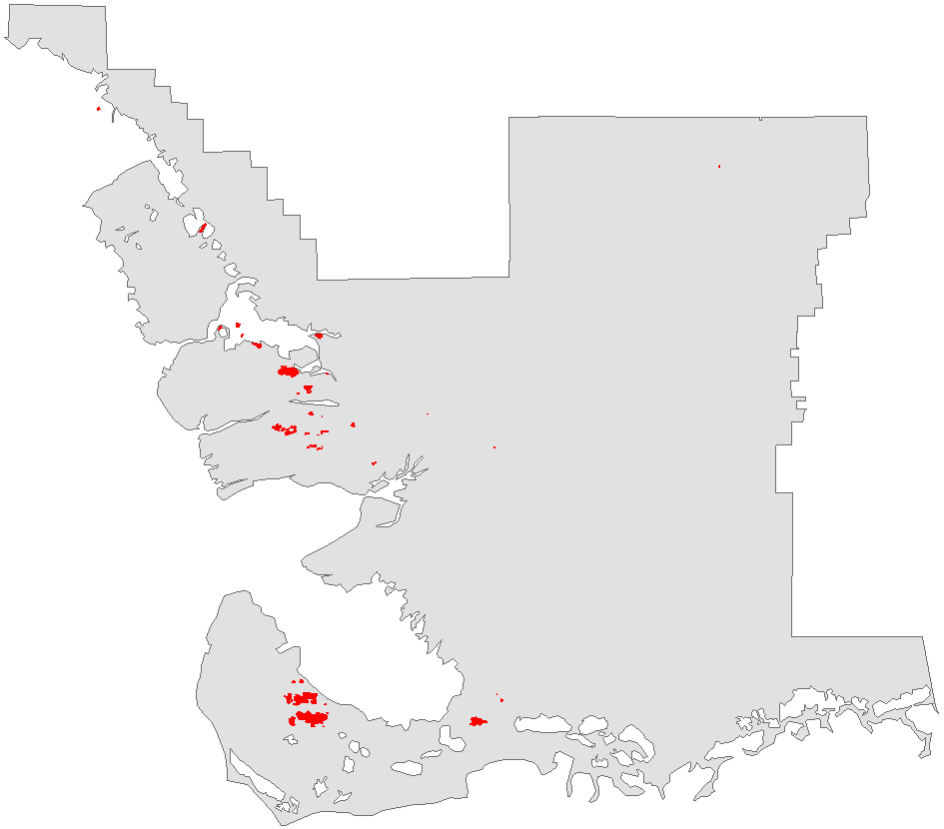
Brazilian Pepper

Coverage Class	Acres
High	7793
Medium	28494
Low	1089
Total	37376

Digital Aerial Sketch Mapping



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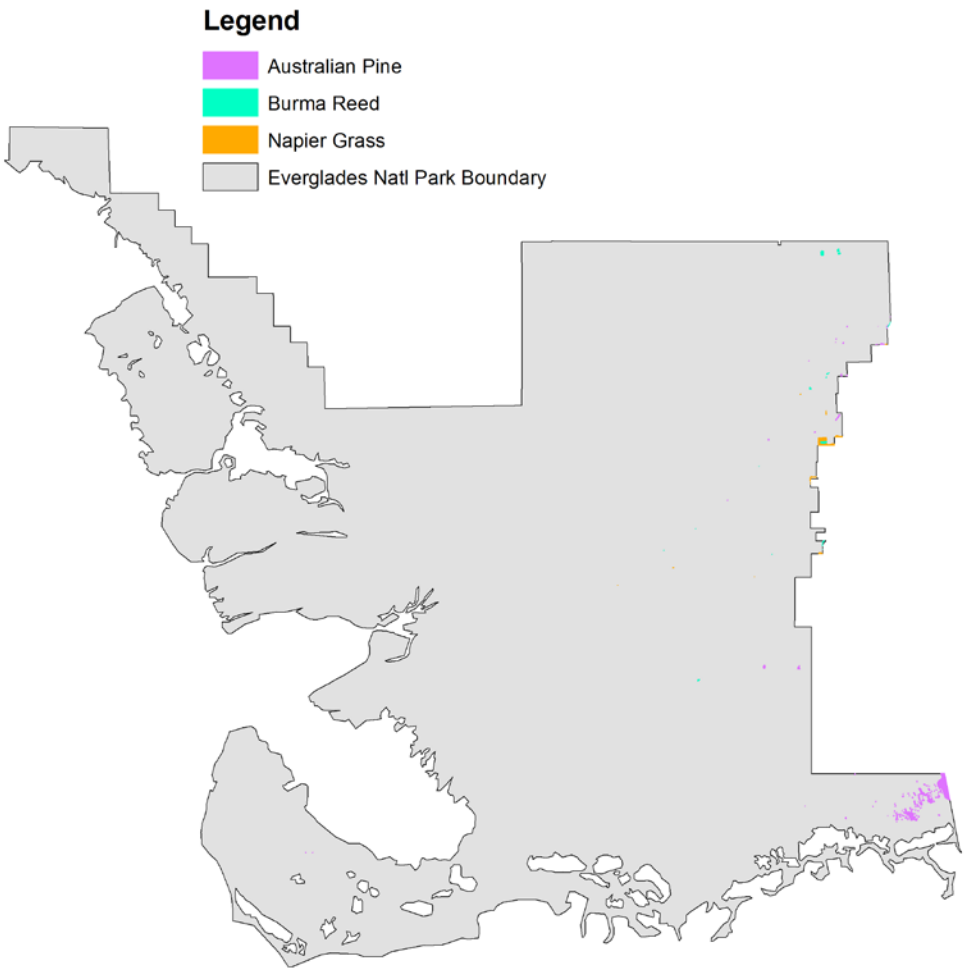
Old World Climbing Fern

Coverage Class	Acres
High	190
Medium	2184
Low	54
Total	2428





Digital Aerial Sketch Mapping



Everglades National Park

Australian Pine

Coverage Class	Acres
High	57
Medium	363
Low	411
Total	831

Burma Reed

Coverage Class	Acres
High	30
Medium	60
Low	
Total	90

Napier grass

Coverage Class	Acres
High	25
Medium	207
Low	
Total	232

Innovations and Successes

Question-Do Brazilian pepper plants treated with Garlon 4 soon after burning re-sprout?

Conclusion-Treatment of burned Brazilian pepper with Garlon 4 is an effective management strategy

	Dead	Live	Total
Treated	10	0	10
Not treated	1	9	10
Total	11	9	20

BP plants were basil barked 3 days after fire
Chi Square 16.36
1 df p-value > 0.0005

Innovations and Successes

- Hopeful that Jenny Richards at FIU will be conducting research on *Colubrina asiatica* (lather leaf)